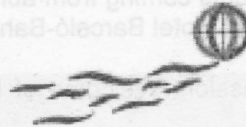


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IMHA WORKSHOP

With the support and sponsorship of ITF/Seafarers Trust



Local collaborators:



SOCIEDAD
ESPAÑOLA
DE
MEDICINA
MARÍTIMA

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INTERNATIONAL WORKSHOP PROGRAMME AND DOCUMENTS

HEALTH IN THE FISHING INDUSTRY

S. Fernando (Cadiz - Spain), 25- 27th. October, 2002

Meeting place: Hospital Naval de S. Carlos – S. Fernando (Cadiz, Spain)
Zona marítima del estrecho, C/ Capitán Conforto s/n, 11100 San Fernando (Cádiz)

Local organizing committee:

- Dr. Pedro José Nogueroles (IMHA member, local coordinator) Profesor titular de Medicina Preventiva y Salud Pública (Universidad de Cádiz)
- Dr. Antonio Ordóñez & Dr. Emilo Salas: Comité de Docencia Hosp. Naval S. Carlos

Coordination by IMHA: Dr. M. Luisa Canals (IMHA vice-president)

INDEX

- 1.- IMHA workshop programme
- 2.- Objectives and main points for discussion
- 3.- Abstracts and documents
- 4.- List of participants
- 5.- Internal report
- 6.- Summary and main conclusions for IMHA Newsletter
- 7.- Budget and expenses
- 8.- Annex

1.- IMHA workshop programme

Friday, 25th. October 2002

- 17.00 Registration & collection of documents
For participants coming from abroad: Airport-arrival according each timetable, meeting point Hotel Barceló-Bahía Sur
- 18.30 Opening session: Welcome of IMHA, background and main objectives of the workshop
- Working in a net for fishermen doctors. References / Dr. R. Verbist letter
Dr. ML.Canals (IMHA vice-president)
- 22.00 Some participants visit the fishing harbour of San Lucar de Barrameda
Dinner of co-fraternization. Hotel Barceló-Bahía Sur

Saturday, 26 th. October 2002

- 09.00 Visit to a local fish farm (CUPIMAR, Puerto Real)
- 10.30 **Plenary session in the Hospital:** Welcome by the Hospital Academic Committee
- The international experience:
- Health and Safety in the Fishing Industry FAO/ILO/IMO. ILO's work concerning health in the fishing sector
Brandt Wagner, ILO Geneva
 - Research projects & safety in fishermen EU
Olaf C. Jensen, University of Southern Denmark, Esbjerg
- The Spanish experience:
- Radio-medical Advice consultations. Medical care on board the fishing vessels
Fernando Gómez, Spanish Radio-medical Centre, Madrid
 - Seagoing fishing ships medical care aboard the Hospital Ship "Esperanza del Mar" along the North-West Africa coast
Enrique Mozo & Paco Mata, Medical Officers of the H/S "Esperanza del Mar"
 - Quality of life in deep-sea fishermen of the tuna fleet
Jorge Herrador, Maritime Health MD, Gijón (paper) /
Medical Assistance on board. Following the fishing fleet
Javier La Fuente & José M. Iturriaga, Medical Of. H/S "Sanimar-Científico"
 - Safety in the Fishing industry
Francisco Piniella, Prof. Nautical Studies, Cadis University
 - Training and Occupational Risk Prevention in Fishermen
Gabriel Táuriz, Maritime Training Centre ISM, Bamio (paper)
The Maritime Health Programme in Spain, international views (comments) Juan Bartolomé (its creator, Spanish Foreign Affairs Ministry)
 - Research project in the fishing industry of Andalucía (SEGUMAR)
Pedro Novalbos, Cadis University

Discussion

- 13.00 Lunch in the hospital

Accn. No.	674.1
Date	1/6/05
MFN No.	41737

15.30	Research experience in Health and Fishing Industry in different countries: Europe <ul style="list-style-type: none"> • Health and Fishing Industry in United Kingdom Catriona Matheson, Aberdeen University (UK) • Status for accidentes, safety and working conditions in the Norwegian fishing fleet Halvard Aasjord, SINTEF Fisheries and Aquaculture, Trodheim, Norway America <ul style="list-style-type: none"> • Perspectives of Health and Fishing Industry in Venezuela Maria M. Rodríguez, Caribe Maritime University, Caracas, Venezuela (paper) Discussion
18.30	Final questions & remarks, conclusions and proposals for recommendations
20.00	Final Dinner

Sunday 27th October 2002

Airport- departure according participants timetable

10.00	Meeting to produce a report of conclusions and prepare a follow up in the next International Symposium on Maritime Health
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2.- Objectives and main points for discussion

Safety and health in the fishing industry are some of the most important fields that need to be improved from our view of "Maritime Medicine". There are a large variety of workers involved, on shore, underwater, coastal and deep-sea fishing. The Food and Agriculture Organization of the United Nations (FAO, 1990) estimates that in the world there are about 28.5 million persons involved in the fishing industry, this number is the double from the figure given in 1970. Of these, roughly 15 million fishermen are employed aboard decked or undecked fishing vessels operating in the marine capture fisheries, of which more than 90 per cent are working on vessels less than 24 metres in length. In relation to the fishing fleet, the total world tonnage of fishing vessels was 27,990,000 gross registered tonnage (grt); it means 1,258,200 vessels in 1995. The 30 top countries and areas in 1995, in decreasing order by grt, were: Russian Federation, China, Japan, United states, India, Republic of Korea, Taiwan, Ukraine, Democratic Republic of Korea, Spain, Canada, Indonesia, Mexico, Thailand, Panama, Norway, Italy, United Kingdom, Malaysia, Argentina, Morocco, Peru, Pakistan, Poland, Netherlands, France, Chile, Philippines, Cuba and Lithuania. In our workshop we'll try to answer several questions:

1. What has been done already in health in the fishing industry?
2. Do we have special Health and Occupational Risks Prevention problems?
3. What are the main problems in different fleets?
4. What is the best action possible to share solutions?
5. Is there a common action, a way of collaboration?
6. Follow up and control
7. Recommendations

Main points:

1. We are trying to encourage different persons and doctors related to the fishing industry in different countries to share main problems and solutions taken or to be taken internationally.
2. We'll try to respond to fishermen' health and risk prevention needs.
3. IMHA should make an evaluation and propose some recommendations.

4. Research projects could be established and maybe IMHA can facilitate technical aspects and cooperation in maritime medicine.
5. A priority list, timetable and intermediate reports can be produced.
6. Legislation and cooperation of different international organisations can be taken into account
7. Publication of results in the IMHA Newsletter, website and other possible publications in other to create an international forum of experts for contact, comment and guidance.

Methodological comments on the programme

The order of the presentations was changed according the participants needs. 3 speakers were not able to come and were substituted by others.

3.- Abstracts and documents

OPENING SESSION

Welcome

Dr. Robert Verbist , President of the IMHA

At the beginning of this workshop I would like to give you some inspiration by a short reflection that I borrowed from Douglas B. Stevenson. Mr. Stevenson is the Director of the Center for Seafarers' Rights at the Seamen's Church Institute of NY & NJ in Manhattan, very close to ground zero, which makes him a witness of crucial events in our era. We met on several seminars and training courses in the world of welfare for seafarers.

The text should help you to focus on the real issue in a workshop: *to come up with a product at the end*. A product that adds an element to what we are building gradually: the position of IMHA in the maritime world. What do we stand for and what do we want to achieve together. What would IMHA do and how would we do it if we were given the decision.

The following was published in the April 29 2002 edition of Lloyds List

Of dogs, fish and men

There was a curious coincidence last week. The huge animal-loving population of the US was watching anxiously as the United States Coast Guard mounted a costly operation to recover a wretched dog from a tiny tanker, long abandoned and obstinately refusing to sink in the Pacific. Meanwhile, at the United Nations building in New York, Douglas Stevenson, director of the Center for Seafarers' Rights, was telling delegates to the UN Convention on the Law of the Sea about the need to rescue people in distress at sea. It is a delicate distinction. Dogs in distress fill newspapers and have people queuing up to offer largesse in loads to canine charities.

People in distress at sea, untouched by that famous Samaritan, now cause others to pass by on the other side lest they themselves end up with trouble and obligations.

With attention focused on the Indonesian terrier, newspaper editors will probably have neglected to report Mr Stevenson's intervention, in which he underlined the pre-eminence of Article 98 of Unclos, which requires that masters must render assistance to any person found in danger of being lost at sea and which, it will be recalled, reinforced the position of the master of the Tampa as he tried to cope with his several hundred guests last year.

Evidence is hard to come by but there is no doubt that watch keepers on some vessels, at least, pointedly look the other way as they close on small craft far from the shore. Quiet words have undoubtedly been spoken to masters about the inadvisability of being too zealously on hand and available when possibly leaky and overcrowded refugee vessels are seen trying to communicate with them.

No state, Mr Stevenson suggested to his multinational governmental audience, should create any disincentive for vessels to respond to a distress at sea. The New York charitable body, he said, had dealt with cases where port states had placed unreasonable financial burdens on ships that had gone to the aid of others.

It seems sad that governments need reminding about these matters but, today in particular, international shipping finds itself quite literally caught in the middle as asylum seekers and desperate immigrants swarm around the sealanes and distressed seafarers find themselves a forgotten minority. The United Nations is just the sort of place for this message to be reinforced, and just at this time.

He also spoke *about the plight of fishermen, who pretty well worldwide find that they have become of less public concern than the fish they catch.* It remains an appallingly hazardous job which strays into the public domain only when fictionalised dramatics like *The Perfect Storm* show the stars baiting lines.

The Torremolinos Convention, which attempts to impose some sort of modest regulatory framework on fishing safety, remains, says Mr Stevenson, unratified. We wonder if the distinguished delegates remembered his words as they tucked into their bouillabaisse that evening.

Let us hope the Coast Guard is successful, as such a "high profile" rescue will surely add to the considerable admiration felt by the public for this fine service. If the dog is dead, perhaps they had better buy another quickly.

But these are strange days when a tiny derelict can attract such attention, but in a winter storm in the South Atlantic a big, iron ore-laden bulker can sink with 30 souls and attract not a single headline.

Seamen deserve better, and it is fitting that distinguished delegates at the United Nations, just occasionally, are given a simple reminder of their human rights.

Have an inspired meeting...

Working in a net for fishermen doctors. References

Dr. M Luisa Canals, IMHA vice-president

IMHA began with a series of workshops, sponsored by ITF seafarer's Trust, in August 1999. Infectious diseases, cruise medicine, a practical guide in maritime medicine for doctors have been some of the subjects covered as background. This is the third workshop that IMHA has organised this year (the first was in Barcelona about "risk prevention and health in harbours" & the second in Rome about "telemedicine for improving medical assistance to seafarers").

The proposal of fishermen doctors working in a net is possible. Here we present the case of Spain thought the programme of Maritime Health supported by the State. Also scientific non profit societies like IMHA in the international field or SEMM in Spain, SIMM in Italy, SFMM in France or DSMM in Denmark as examples of national ones can help in the task. I'm presenting some articles and references (look at the end of this section) that can give light about some of the health issues already studied in the fishing industry (deep and coastal fishing, aquaculture ...)

INTERNATIONAL APPROACH

ILO / IMO / FAO

"ILO's work concerning health in the fishing sector"

Brandt Wagner, International Labour Office, Geneva, Switzerland

Preparation of comprehensive standard (a Convention supplemented by a Recommendation) for the fishing sector

Background

At its 283rd Session (March 2002), the Governing Body of the International Labour Office decided to place on the agenda of the 92nd (June 2004) Session of the International Labour Conference an item concerning a comprehensive standard (a Convention supplemented by a Recommendation) for the fishing sector. The ILO currently has seven standards specifically concerned with the conditions of work of fishermen. These are the:

- Hours of Work (Fishing) Recommendation, 1920 (No. 7)
- Minimum Age (Fishermen) Convention, 1959 (No. 112)
- Medical Examination (Fishermen) Convention, 1959 (No. 113)
- Fishermen's Articles of Agreement Convention, 1959 (No. 114),
- Fishermen's Competency Certificates Convention, 1966 (No. 125)
- Accommodation of Crews (Fishermen) Convention, 1966 (No. 126)
- Vocational Training (Fishermen) Recommendation, 1966 (No. 126)

This new standard will revise the seven existing ILO standards which specifically concern the fishing sector and may cover new issues not covered by the existing standards, including occupational safety and health and social security. The Office is now preparing a report on law and practice in ILO member States concerning living and working conditions in the fishing sector. The report is an essential component in the preparation of the new instruments. At the end of the report there will be a series of questions about the possible contents of the new standard. The law and practice report, with its questionnaire, will be sent to Member States at the very beginning of 2003, and they will be asked to reply to it by late Spring 2003. A tripartite meeting of experts on labour standards in the fishing sector will be held in September 2003 to provide further guidance to the Office. The International Labour Conference will discuss the law and practice report, the results of the Office questionnaire, and the outcome of the meeting of experts, in June 2004. A second discussion will be held at the *June 2005 session of the Conference which, it is expected, will also adopt the new fishing standard.*

Why this may be of interest to IMHA members

As can be seen above, there are a number of issues which may be of interest to IMHA members which may be reflected in the provisions of the new standard. These include: *the content of any medical examination for fishermen; the contents of the medicine chest to be carried on fishing vessels; radio medical services for fishermen; occupational safety and health regulations for fishing vessels; occupational safety and health services for fishermen; notification and reporting of fatalities, injuries and diseases. Training of fishermen in first-aid* may also be an issue, though the IMO's International Convention on the Standards of Training and Certification for Fishing Vessel Personnel, 1995 (the STCW-F Convention), includes provisions on these issues and, generally, the ILO standard will probably not seek to repeat such provisions.

Request for IMHA workshop participants to give their views

The IMHA Workshop on Health in the Fishing Industry provides the ILO secretariat with a well-timed opportunity to hear the views of the international maritime medical community on possible new health-related provisions of the ILO's proposed new standard for the fishing sector. IMHA members might consider the following questions, and we could discuss them at the workshop:

- What provisions could be included in an ILO standard on fishing which would contribute to improving the health of fishermen?
- What are the particular health issues for fishermen as compared to other workers?

- What are the particular health issues for fishermen compared to other seafarers?
- How could the new ILO standard not only address the health of fishermen on larger vessels but also on smaller, coastal vessels and those engaged in artisanal fishing?

It has been suggested that the ILO/WHO publication Guidelines for Conducting Pre-sea and Periodic Medical Fitness Examinations for Seafarers may be applicable to fishermen as well as seafarers in general. Do you agree? If not, what special guidance is needed for conducting medical examinations of fishermen?

How could a new ILO standard assist those interested in establishing promotional programmes for health and safety in the fishing sector?

How could a new ILO standard assist in the collection and treatment of data on fatalities, injuries and diseases of fishermen so that the statistics produced could be used to reduce rates of death, injury and illness in this sector?

Revision of FAO/ILO/IMO Codes concerning safety of fishing vessels and safety & health of fishermen (i.e., fishing vessels personnel)

Status of FAO/ILO/IMO publications concerning fishing and fishermen

The FAO, ILO and IMO have, over many years, jointly produced four publications concerning fishermen (i.e., fishing vessel personnel) and fishing vessels. These are the:

1. FAO/ILO/IMO Document for Guidance on Training and Certification of Fishing Vessel Personnel
2. FAO/ILO/IMO Code of Safety for Fishermen and Fishing Vessels -- Part A
3. FAO/ILO/IMO Code of Safety for Fishermen and Fishing Vessels -- Part B
4. FAO/ILO/IMO Voluntary Guidelines for the Design, Construction and Equipment of Small Fishing Vessels

The first publication (the "Document for Guidance"), which provides guidance on the training and certification of fishermen, includes requirements for training on medical and first aid issues. It also provides that "trainee fishermen should be required, before entering training schemes, to undergo a general examination as to their medical fitness, including eyesight and hearing, relevant to the duties they will have to perform". It was revised following, among other things, the adoption of the IMO's STCW-F Convention, and the latest, second edition was published in 2001. There are no plans to make any further changes to this publication.

The second publication ("Code Part A") is being revised (see below).

The third and fourth publications ("Code Part B" and the "Voluntary Guidelines"), which focus on fishing vessels and the equipment they carry, have been undergoing revision for the last few years. It is planned that they will be finalized in 2005. One of the outstanding issues, which must be dealt with before Spring 2003, is the finalization of the chapter concerning medical supplies/equipment to be carried on board fishing vessels.

The Revision of Code Part A

Work on the revision of the second publication (Code Part A) has only recently started, following a decision taken by the IMO's Subcommittee on Stability and Loadlines and on Fishing Vessels (the "SLF") at its July 2002 session in London. The thrust of the SLF's decision (which is subject to approval by its parent body, the IMO's Maritime Safety Committee) was that work should immediately begin on the revision of Code Part A so that it could be completed in time to be finally approved and published in conjunction with Code Part B and the Voluntary Guidelines. The SLF among other things

Endorsed the view of the group that, unlike the current version, which is intended to be read by fishermen, the revised version should be directed primarily towards competent authorities, training institutions, fishing vessel owners, fishermen's representative organizations, and non-governmental organizations having a recognized role in fishermen's safety and health and training. Therefore Part A of the Code should be comprehensive, informative and global. It should provide guidance for the development of national codes and guidance on safety and health of fishermen and fishermen's education and training manuals. Competent authorities would be encouraged to make use of the contents of the Code in the production of safety and health and training materials in an appropriate format to suit the particular needs of the fisheries of the country or region and in local languages.

The SLF agreed to establish a correspondence group on the revision of Code A, under the coordination of Capt. M. Ahmed of Bangladesh). The ILO and WHO have agreed to participate in this work. Captain Ahmed has established a website for the work of the correspondence group (the website uses the same address as the website that had been established for the revision of Code Part B and the Voluntary Guidelines, www.sigling.is/imofishing/home.htm, on the site of the Icelandic Maritime Authority. IMHA workshop participants are encouraged to visit this website prior to coming to Cadiz (when visiting this site, please click on "Part A ISCG" on the right side of the screen).

Status of work on the revision of Code Part A

The official, full title of Code Part A is the FAO/ILO/IMO Code of Safety for Fishermen and Fishing Vessels, Part A, Safety and Health Practice for Skippers and Crews. As its title implies, this document focuses on safety and health practice, as opposed to equipment. The existing version of the Code, published in 1975, includes the following chapters: General Provisions, Navigation, Safety of the Vessel, Safety on Deck, Safety in Fishing Operations, Safety in Machinery Spaces and of Mechanical Equipment, Special Safety Precautions, Life-saving Appliances, Fire Precautions and Firefighting, Shipboard Facilities for Personnel, Safety Organization and Conditions for Employment, and Abandoning Vessel, Survival and Rescue. There are several Appendices, including an Appendix providing "Recommended Contents of Fishing Vessels' Medicine Chest", "Artificial Respiration", and "Information on Hypothermia". As you can see, there is no dedicated chapter on health or medical issues. You will also note that the structure of the existing version of Code Part A does not distinguish between large fishing vessels and small fishing vessels.

The correspondence group has prepared a new "provisional structure and contents" for the revised version of Code Part A. The new structure provides for a section (Section I) covering all vessels, a section (Section II) for "undecked vessels and decked vessels of less than 12M in length", and a section (Section III) for "decked vessels of 12M in length and over". It was also tentatively agreed that Section I should contain a dedicated chapter (Chapter 4) on "health and medical care" in order to give greater attention to health issues. It was agreed (and this is subject to change) that:

This chapter should give guidance to Competent Authorities on requirements for health and medical care in relation to skippers and crews. In this regard, the Competent Authority would ensure the involvement of medical practitioners.

The subject matter would include:

- Medical examination and monitoring
- Medical treatment at sea
- Medical advice by radio
- First aid
- Safety and health organization
- Conditions for employment
- Drug and alcohol prevention
- Diseases, sexually transmitted diseases including HIV.

The ILO has agreed to prepare the first draft of this chapter, as well as another chapter on "shipboard facilities for personnel (accommodation, food & catering) for posting on the correspondence group website in November 2002.

Request for IMHA workshop participants to give their views

The IMHA workshop provides an excellent opportunity for the ILO secretariat to hear the views of the international maritime medical community on what should be included in Code Part A as concerns the health of fishermen. Obviously, there will be some overlap in the provisions of the new ILO standard for the fishing sector and what will be included in Code Part A. We can distinguish between the two as follows: what can be included in the new ILO standard should be provisions which can be reflected in national laws and regulations; what should be included in Code Part A may reflect what is included in the ILO standard but can provide further detail and guidance applicable not only to competent authorities but also to others. As noted above, information included in the Code Part A might also provide guidance on what should be included in user-friendly publications and manuals aimed at fishing vessel owners and fishermen themselves.

Bearing this in mind, IMHA participants may wish to consider the following questions so that we can discuss them at the workshop:

- What guidance should the revised Code Part A provide on health issues on board fishing vessels?
- Should there be a distinction between equipment to be carried on small vessels and equipment to be carried on larger fishing vessels?
- What guidance might be included on first aid? (Is there an existing text on first aid which might be included in an Appendix to the Code that could be replicated by those producing manuals for fishing vessel owners and fishermen?)
- What guidance might be included to assist in the improvement of the health of fishermen (e.g., fatigue, food preparation, fitness, avoidance of certain diseases common to fishermen, etc.)?

For additional information on these issues, IMHA members may wish to visit the following ILO website:

<http://www.ilo.org/public/english/dialogue/sector/sectors/mariti/fishing-iloact.htm>

RESEARCH EU

"Research projects and safety in fishermen EU"

Olaf Jensen, Research Unit of Maritime Medicine, Esbjerg, Denmark

With an accident rate of 2.4 times the average of other occupations the fishing industry has been assessed to be the most dangerous economical activity in the European Union (1). Small and medium sized industries characterize the occupation and less than a few per thousand are employed in most countries. Both factors can complicate the safety work. For many years the Commission has been aware of the special working environment and the higher injury risk in the fishing industry and in March 2002 invited the labour marked parties to point to measures which can improve the living, working and safety conditions in the fishing industry (2). At the request of the Commission the "Institut Universitaire de Technologie de Lorient" from 1970-1985 completed several important studies about safety and working environment in the fishing industry in a number of member states (3). Since then a number of regulatory efforts from the EU, which have been followed-up nationally, have been implemented, besides the effort from the IMO and the ILO. In the latest European-International conference in Bamio, Spain 1992 a

number of important documents concerning working conditions and safety in the fishing industry were presented (4). Since then a number of different research and development activities in the European fishing countries have been carried out. However, there have not been enough resources to maintain continuous efforts of the area. An overall assessment of the present documentation, its faults and evidence for recommendations about working environment and safety is not available. The European Agency for Safety and Health at Work has within the latest years included the fishing industry, but a more definite documentation in the area alone will not be possible. A reduction of the number of deaths in the Nordic countries within the latest 10 years has taken place. Concerning non-fatal accidents in Denmark it is not known if there has been a reduction. An example of centralizing the activities is a Nordic cooperation, initiated in 1997-98: among other things the introduction says: "The efforts to reduce the elements of danger in the work of the fishermen have been varying between the different Nordic countries. In the research there are several environments in the Nordic countries who have been working on this, with different focus and professional character, among other things because the priority of means for research and development in the area has been unsettled"(5). A contact network comprised resource persons in Sweden, France, The Netherlands, Canada, Russia (Kaliningrad), Italy, United Kingdom, Denmark, Spain, Iceland and Germany.

Conclusion: There seems to be a need for a heavy and continuous effort in the area. In strengthening of the existing resources and in part a cultivation of new research and development areas. Some proposals for collaborative projects will be presented. These have been submitted as Expressions of Interest for the 6th framework programme in the EU, but should also be extended to non-EU countries.

References:

1. EU. Work-related Accidents in the EU - the Statistical Picture (1998-1999). 19. 2001. Det Europaeiske Arbejdsmiljoeagentur. Facts. 14-1-2002.
2. Commission of the European Communities. Adapting to change in work and society: a new Community strategy on health and safety at work 2002-2006. 118. 11-3-2002. Brussels, Commission of the European Communities. 21-5-2002.
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4. IInd International Symposium. 1992. Galicia, Spanien, Centro de Formación Ocupacional Marítima de Bamio.
5. Amble, A. Etablering av nordisk nettverk for FOU-samarbeid vedroerende Sikkerhet, arbeidsmiljoe og helse for fiskere. MT40 A-98-222. 1998. Trondheim, Marintek.

NATIONAL APPROACH

SPAIN

"Radio-medical advice consultations. Medical care on board the fishing vessels"

Fernando Gómez, Spanish Radio-medical Centre, Madrid, Spain

Medical advice centers have been constituted as centers which impart medical assistance to patients who cannot reach the traditional health centers. A peculiar case of these isolated populations is the seafarers on board their ships. Due to the number of workers and for that of crafts, the fishing sector is the one which requests this type of medical attention more often.

Since 1st May 1979, the Spanish Medical Advice Center (C.R.M.E.), of the "Instituto Social de la Marina" (Ministry of Labour and Social Affairs), began to assist on board seamen -whatever is their nationality, the flag of the ship and the sea through they sail-. From then on there have been carried out near 90.000 medical calls.

If we study the last ten years (from 1992 up to the 2001, both inclusive), the C.R.M.E. assisted 19163 seafarers, 17520 of those (91,43%) worked on board fishing ships. Of all the assisted cases, 74,41% were due to illness (14259) and 25,59% accidents (4904). 91,72% of all the accidents were assisted on board fishing vessels.

“Seagoing fishing ships medical care aboard the Hospital Ship “Esperanza del Mar” along the North-West Africa coast”

Dr. Enrique Mozo & Dr. Paco Mata, Medical Officers of the H/S “Esperanza del Mar”, Spain

The Hospital Ship (H/S) “Esperanza del Mar” was designed as a medical support vessel and also to give technical support (divers, electrician, engineer, rescue operations..) for the Spanish fishing ships working along the Sahara and Mauritania coast, where one of the richest fishing banks is located. The H/S and her crewmembers are under the Spanish Government responsibility, the Labour and Social Affairs Ministry, as part of the “Instituto Social de la Marina” (ISM) resources, this institution manages seafarers affairs.

In the eighties, ISM developed a comprehensive health program for seafarers, named “Programa de Sanidad Marítima” (Maritime Health Programme). One of the aims of this program was to provide the seafarers, some were fishing far away from the Spanish coasts, with as many technical and human health means as possible. The H/S Esperanza del Mar was the answer, at least for the Sahara and Mauritania fishing ships fleet. This first experience was successful and gave chance to continue with another boat with medical support, her name is now “Científico” (“Sanimar” as a general name as far as she can change depending on the year) working around the Atlantic Ocean, close to the Biscay Bay. This first step included, before, the foundation of several Foreign Medical Assistance Centres, in some non-developed countries where our nation had fishing agreement, too. The medical advice and the coordination was performed by the Radio Medical Centre office in Madrid.

From 1982 the hospital ship “Esperanza del Mar” has been carrying out their medical activities along the Sahara bank (24° to 19° North latitude). In 1998 the fishing agreement between the European Union and Morocco kingdom expired and in spite of two years of long and hard dealings, renewal was not possible. At the present time, the hospital ship operations zone is located along the Mauritania coast, North of Senegal and close Atlantic ocean areas, (21° to 14° North latitude and 16° to 18° West longitude) where there are very rich fishing banks too, and also a big traffic of merchant vessels coming from East and West Africa coast to Europe. In this area we can find over on above, larger seagoing fishing vessels from Europe (Spanish, Portuguese, Dutch, Russian, Ukrainian ...) Morocco, Mauritania and Senegal, but also a lot of little coastal vessels from Mauritania and Senegal engaged in artisanal fishing.

Figure 1, show us the number of seafarers assisted on board the H/S “Esperanza del Mar”, according to their nationalities during the year 2001. We can check that the number of crewmembers from other countries is important.

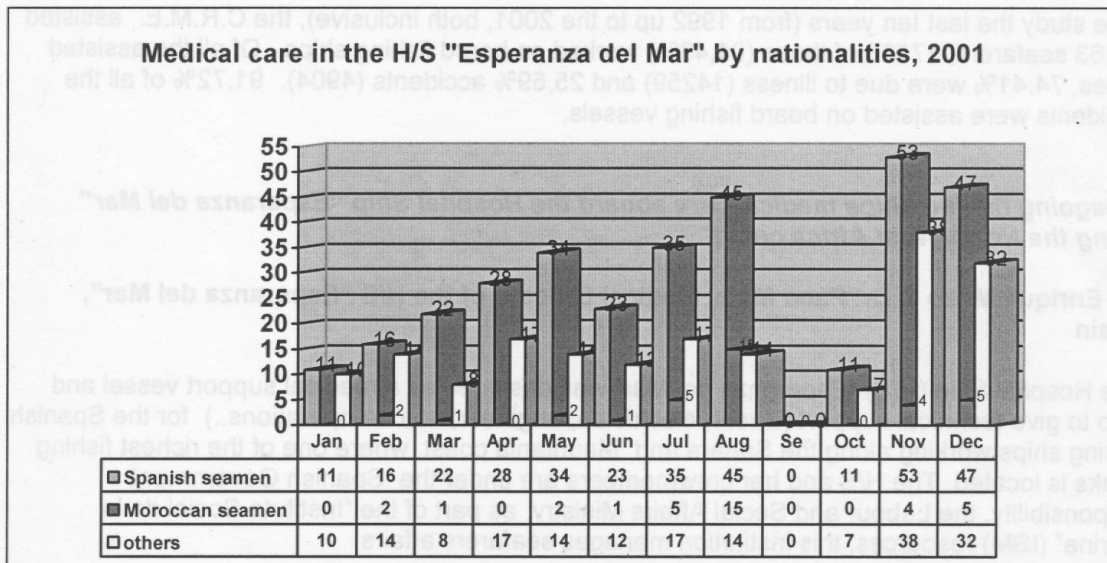


Figure 1. Medical care in the H/S Esperanza del Mar, nationalities of the patients, 2001

A new hospital ship, named "Esperanza del Mar" too, has replaced the former one (retired after twenty years of laudable works), she is sailing in that operations zone from September 2001. The new Esperanza del Mar, is a modern ship, fully equipped, that has been designed taking into account twenty years of experience with seafarers medical care at sea. The hospital area takes a whole floor of the ship, the way of working is similar to any other medical emergency service on duty 24 hours. The H/S has available radiology, laboratory, echography and surgery departments. There are seven cabin-rooms with two beds each and two more beds in the intensive care unit. Besides, seafarers admitted at hospital can enjoy very nice and comfortable service areas.

Whenever a fishing vessel needs medical help, radio medical advice is asked for, usually by radio (SW or mw) or even by satellite. Then the doctor on duty talks with the patient or with the skipper by the radiophone or satellite phone located at the hospital. The physician fills up a medical report form and if necessary, the hospital ship sails to the fishing vessel position to evacuate the crewmember aboard H/S. The patient will come back to his ship, only when he is fit for work, otherwise he will be admitted in our hospital for further examinations and treatment. When the patient is seriously injured or needs urgent specialised care, the physicians aboard the hospital ship can try to stabilise their constants and start the treatment in the intensive care unit, while the SAR helicopter is coming to transfer him to the Central Hospital in the Canary Islands (Las Palmas).

If we are far from the helicopter area (maximum 20° 40' North latitude) or it takes too much time to arrive at the helicopter meeting point, due to bad weather conditions, we can evacuate medical emergencies through one of the main ports in our zone; Nouadhibou, Nouakchott and Dakar. In these cases our ship co-ordinates the evacuation with the Spanish Maritime Rescue International Centre (Las Palmas) and the ISM Foreign Medical Care Centres (Nouadhibou or Dakar) in such a way that the hospital ship, lands the patient under medical surveillance, only when the aircraft has landed in the closest airport with portable aerial intensive care and movable unit aboard aircraft.

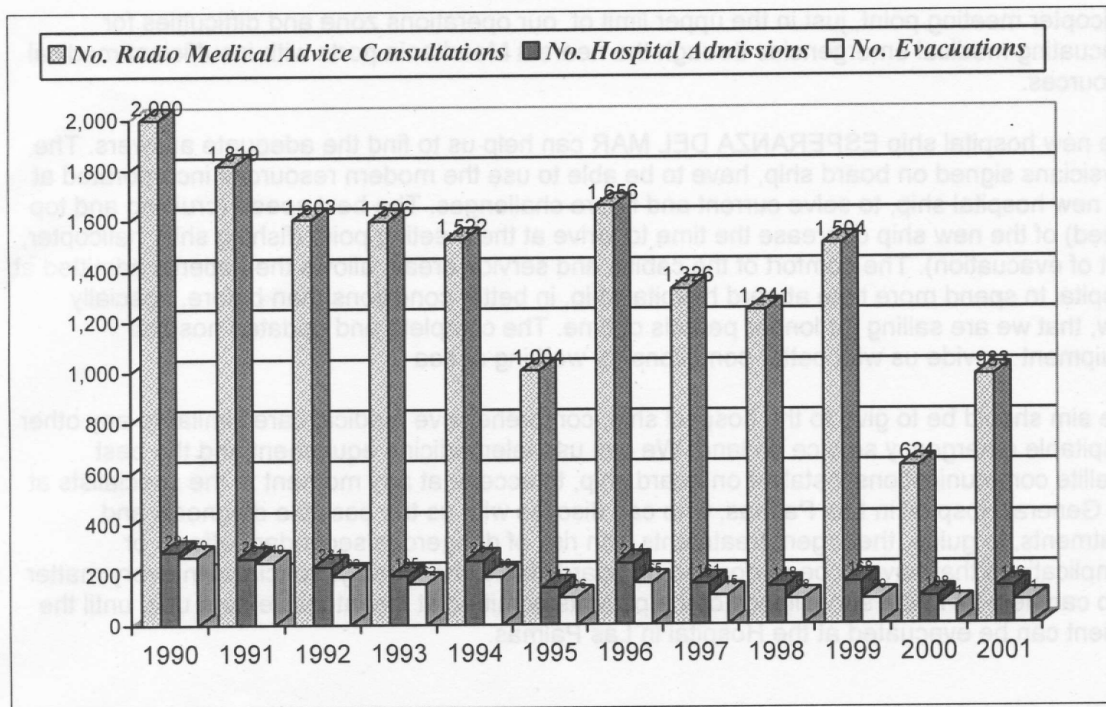


Figure 2. Esperanza del Mar: number of radio-medical consultations, hospital admissions and evacuations (1990-2001)

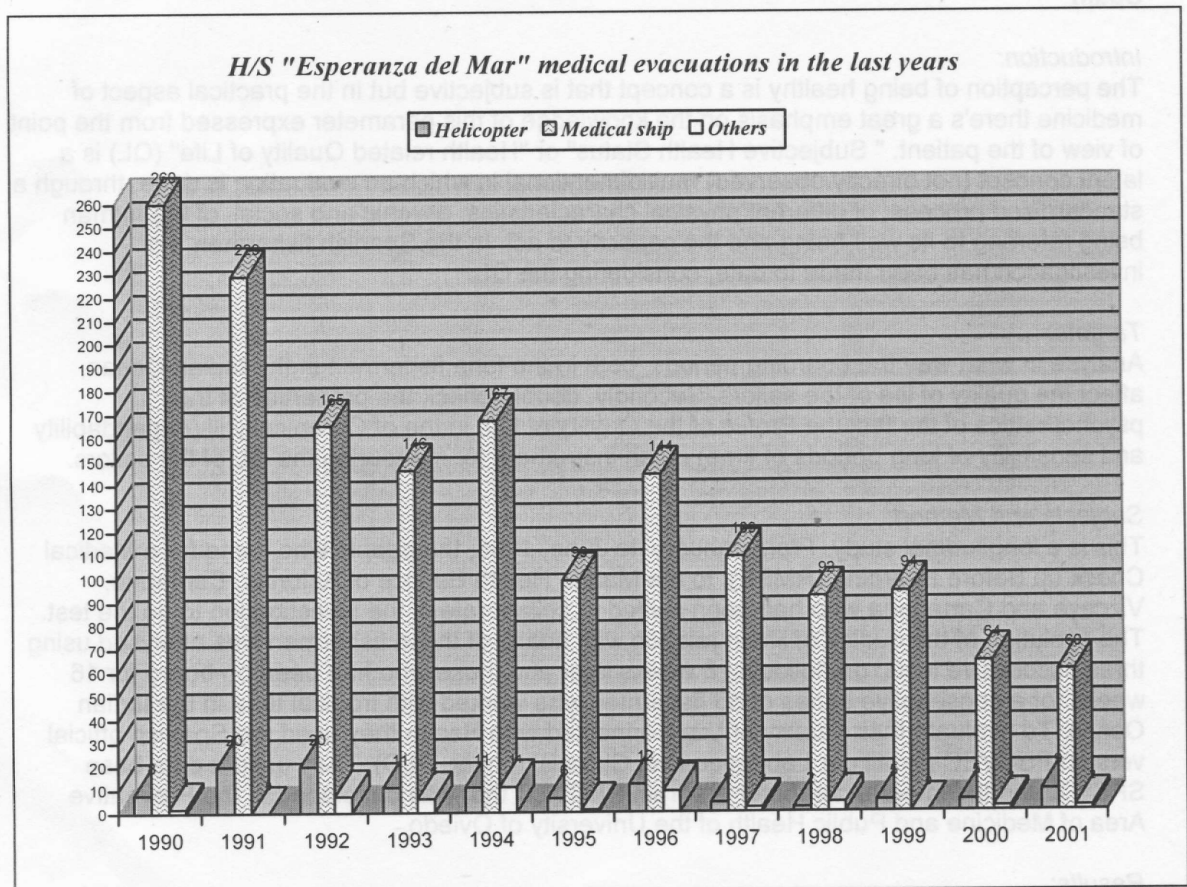


Figure 3. H/S Esperanza del Mar medical evacuations in the last years

At present, we have to overcome new challenges as a result of the increasing distances from the new fishing banks to the Spanish ports (about 1000 km away), troubles to arrive at the

helicopter meeting point, just in the upper limit of our operations zone and difficulties for evacuating medical emergencies through the nearest Mauritania ports with insufficient medical resources.

The new hospital ship ESPERANZA DEL MAR can help us to find the adequate answers. The physicians signed on board ship, have to be able to use the modern resources incorporated at the new hospital ship, to solve current and future challenges. The best speed (cruising and top speed) of the new ship decrease the time to arrive at the meeting point (fishing ship, helicopter, port of evacuation). The comfort of the cabins and service areas, allows the patients admitted at hospital to spend more time aboard hospital ship, in better conditions than before, specially now, that we are sailing for longer periods of time. The complete and updated hospital equipment provide us with better conditions for working at sea

The aim should be to give to the hospital ship, comprehensive medical care similar to any other hospitable emergency service on land. We can use telemedicine equipment and the best satellite communications installed on board ship, to accede at any moment to the specialists at the General Hospital in Las Palmas, who can discuss with us the possible diagnosis and treatments, to guide the urgent treatments with risk of dangerous secondary effects or complications that have to be performed on board ship without delay, specialist in every matter who can help us in the surveillance of the patients admitted at the intensive care unit, until the patient can be evacuated at the Hospital in Las Palmas.

"Evolution of the quality of life (QL) of a group of fishermen on board"

Jorge Herrador Aguirre. Maritime Health MD. & Medical Officer H/S "Científico" Gijón, Spain

Introduction:

The perception of being healthy is a concept that is subjective but in the practical aspect of medicine there's a great emphasis on the knowledge of this parameter expressed from the point of view of the patient. " Subjective Health Status" or "Health related Quality of Life" (QL) is a latent concept (not directly observed) multidimensional in which an evaluation is done, through a standardized process, of different physical characteristics, psychic and social, of the human being referring to its well-being and the capacity to act. In the Spanish fishermen, no investigation has been made to date, considering the QL.

Targets:

Analyse in what way the boarding periods, both in the tuna fishermen in the Indian Ocean, affect the quality of life of the sailors. Secondly, double-check the properties of the psychometrics of the test the Profile of the Quality of Life in the of Chronically ill (dependability and sensibility of long periods of time) as an instrument for measuring the QL of the sailors.

Subjects and Method:

This is a longitudinal study. From January to June, 1998, the people who came for a Medical Check up Before Boarding (RMPE), to the Marine Health Service of Asturias, Cantabria, Vizcaya and Cartagena who had been invited to collaborate in the investigation to do the test. The evolution of the quality of life in relation with health of these fishermen was analysed using three successive tests: on holidays, 8 weeks later and those who had been on board for 16 weeks for a consecutive series of 56 fishermen who worked with tropical tuna in the Indian Ocean. To evaluate their Quality of Life Connected with Health they used the Spanish official version PECVEC (Profil der Lebensqualität Chroniskranker, PLC). They used a data base SPSS X and the integral computer program PECVEC that was developed in the Preventive Area of Medicine and Public Health of the University of Oviedo.

Results:

In all the scales the standard minimum was higher than (0.7) of the alpha coefficient of Cronbach which proved to that the test used was trustworthy dependable. The results of the average of repeated measurements show a maximum value during the period of vacations in the Negative Mood (3.25) and a minimum value after 4 months on board in the Scale of the Positive Mood

and Social Functioning (2.24). In the range of punctuations from 0 to 4, the higher punctuation corresponded to a better quality of life. 42.8% of subjects had a worse QL in the third measurement in comparison with the one that had been done during their vacations.

Conclusion: The comparison of average results for repeated measurements showed, revealed a significant difference between them, which meant, a distinct degeneration of the QL when the patients were on board the ship on a permanent basis. The results of a third measurement clearly show, *the longer the period on board, the more the Quality of Life Related to Health deteriorate.* The measurement of the QL in Marine Health Centres, should become a common practice and workers at sea should be given a Personal Report every time they went for a RMPE, in which not only the actual results were given but also an evolutionary study of the measurements that had been taken during the whole period, so as to value the repercussions of work on health.

“Training and Occupational Risk Prevention in Fishermen”

Dr. Gabriel Táuriz, Maritime Training Centre ISM, Bamio, Pontevedra, Spain

The characteristics of work at sea have exposed this sector to a high accident and mortality rate. That is why international organisms such as the International Maritime Organisation (IMO) have issued norms in which they state that they consider it compulsory for all crew members to receive an adequate health education during their professional training which should guarantee basic preparation, thus enabling crew to act in case of illness or an accident on board. We propose for comments a description of the gradual training these workers should have, depending on their level of responsibility on board. They have to learn measures for occupational risk prevention on board. The IMO criteria must be followed and also serve as a reference for seagoing crew members' health training, according to Spanish legislation as stated in the Real Decreto (Royal Decree) 258/1999 which establishes obligations and duties in matters of health training for crew members. Firstly, there is a description of the minimum general concepts any crew member requires in order to be able to take immediate measures should an accident or any other type of medical emergency occur. Secondly, we find a description of the training required by seafarers who are in charge of administering first aid, so that they can identify the cause, nature and degree of seriousness of the illness or accident the crew member has suffered on board and, as a result of the knowledge they have acquired, be capable of administering adequate first aid treatment. The aims of a third degree in training should allow the person on board in charge of crew's health to have enough resources to administer medical care to the sick or injured on board as well as to handle pharmaceutical products and adopt preventive measures.

“Safety at sea in coastal fishing ships in Andalusia, Southern Spain – a case study”

Francisco Piniella, Ph.D., Department of Navigation, University of Cadiz, Spain

ILO's Occupational Safety and Health Branch estimates that 24,000 fatalities occur per year worldwide in fisheries (ILO, 2001). According to official statistics in Spain (INSHT, 2001), the number of accidents regarding fishermen in the year 2001 accounted for 4,809 people: 4,629 light injuries, 140 serious injuries and 40 fatalities. The death rate in Spanish fisheries was estimated at six times over the average. In its policy documents regarding fisheries, the European Parliament stated that safety on board fishing vessels can be given a significant boost by providing, on a more permanent basis, more effective training for crews in this area.

In the Andalusian region, local coastal communities are highly dependent upon the marine environment. Andalusia is a region seriously affected by the failure to reach a fisheries agreement with Morocco. A program for studying safety in small coastal fishing vessels is being developed at the University of Cadiz by a multidisciplinary group (biologists, physicians, mariners and mathematicians). The project is funded by the Government of Andalusia. The study, named *SEGUMAR*, consists of an analysis of the fishing fleet of the Andalusian region throughout the year 2002. More specifically, the study aims to evaluate: working conditions

aboard these ships (human accidents, occupational and mechanical risks, etc); survival and fire fighting equipment on board; and fishermen's morbidity and life style.

"Job safety and health conditions of the Andalusian fishing fleet: Proyect SEGUMAR"

José-Pedro Novalbos, MD, MPH. Department of Preventive Medicine and Public Health, University of Cádiz, Spain

This study tries to analyse the job safety and health conditions of the Andalusian fishing fleet, by means of a multidisciplinary boarding. They are analysed the work conditions specifically on board these vessels, to the object of detecting the risks factors dependent of the safety conditions, occupational environment, as well as those derivates of the organization of the work and of the demands that the tasks impose the worker.

In our study they are visiting one another the main fishing jetties of our community, verifying the state of the vessels actives, their communications, sailing and safety equipment. For it, have been elaborated check-lists based in national and international regulations about safety. By means of questionnaires to the crew are analysed the pathologies more prevalents and the lifestyles "in earth", as well as the morbidity related with the period of shipment and the modifications in the lifestyles conditioned by the fishing activity.

This descriptive study seeks the obtaining of indicators of the safety conditions and health of the fishing fleet as starting point for performances on the sector and to be able to evaluate the produced improvements.

This study is being financed by the autonomous government of Andalusia and the University of Cádiz (Spain), and has the invaluable collaboration of the COFRADIAS (traditional fishermen's organizations), as well as of technical personnel of the INSHT and ISM.

UNITED KINGDOM

Matheson C.*, Lawrie T.*, Morrison S.*, Ritchie L.*, Murphy E., Bond CM.***

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Introduction

Fishing is one of the most dangerous occupations in the UK with 120 deaths in a five year period from 1994-1998 in the UK (MAIB). Previous studies of mortality in the UK fishing industry have shown little improvement in mortality rates over time (Reilly, 1985). Whilst measures have been taken to address safety issues such as mandatory training in key areas, risk assessments and compulsory inspections every four years by the Maritime Coastguard Agency, health issues have not specifically been addressed through research or other initiatives. Little previous research has been conducted in the UK in this field and what has been done tends to focus on mortality rates (Matheson et al, 2001). A research programme was undertaken during 1999/2000 to provide an overview of the health and safety issues affecting fishermen in Scotland.

Objectives

The objectives of this research programme were to:

1. quantify the incidence of ill-health related incidents in the offshore environment;
2. explore the use of medicines from the on-board medicine chest;
3. investigate the use of alcohol in fishing personnel;
4. investigate and, if possible, quantify the use of illicit drugs by fishing personnel;
5. explore the issue of fatigue in fishing personnel when offshore;
6. examine the incidence and patterns of ill-health at sea in fishing personnel.

Methods

A health and lifestyle questionnaire was developed, piloted, then sent to 2011 fishermen across Scotland. There was considerable promotion of the questionnaire through posters and local radio advertising to encourage participation. An audit of the use of onshore Accident and Emergency services by fishermen was conducted in eight Accident and Emergency departments of hospitals in North East fishing communities. Data was collected over a six month period.

Results

The response rate was 57.2% (n= 1150) after two reminders. Of these, 21.9% had personally been involved in a medical emergency at sea which required them being taken ashore. 'Back injuries', 'leg or arm injuries' and 'cuts requiring stitches' were the most common injuries reported. Bad weather, lack of sleep/fatigue and poor condition/maintenance of boat were the three factors reported by fishermen to most affect their safety at sea. *Lack of sleep/fatigue, lack of exercise and financial stress were the three factors reported by fishermen to most affect their health.*

38.4% of respondents smoked and 80.6% of respondents drank alcohol. Over eighty percent of respondents reported that they did not drink alcohol at sea. A fifth of respondents have taken illicit drugs at some point in their life and cannabis was the most commonly used drug. 18.4% of respondents had been aware of other crew using illicit drugs at sea.

Use of medicines from the *medicine chest* was very low and analgesics were the most widely used medicine. Approximately half of respondents took their own supply of medicines. Twenty per cent of respondents took regular medication on prescription and cardiovascular, ulcer healing and analgesic medications were the most frequently used prescription medicines.

There were 164 cases of fishermen attending A&E over the six month data collection period. The majority of presenting symptoms (57.0%) first arose at sea, (34.1%) on shore and nine in harbour. 81.1% of cases presented injuries and 11.6% presented illnesses. Illnesses were statistically more likely to arise on shore and injuries were statistically more likely to arise at sea. Body parts which were most greatly affected by injury were 'hand, wrist and fingers' (34.5%), followed by 'head, face and throat' (16.5%). The most frequent types of injury were lacerations (28.1%) and soft tissue injuries (23.8%). Respiratory tract infections, cardiovascular illness and genito-urinary illnesses were the most frequently presented illnesses. Evacuation was required by 21.4% of fishermen as a result of injury and 3.6% as a result of illness.

Conclusions

Levels of accidents and injuries appeared high and further exploration of the influence of safety improvements such as risks assessments need to be considered. Fatigue was perceived to affect both health and safety. Stress was a predominate issue and this was sometimes believed to be compounded by financial pressures. Recognising the signs of both stress and fatigue and steps which could be taken to address these should be included in training. There is substantial evidence of high levels of smoking and issues around the consequences of passive smoking given the confines of most boats should be considered. The contents of the Medicines Chest should be made more flexible and related to need and training on medicine use increased for skippers.

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NORWAY

"Status for accidents, safety and working conditions in the Norwegian fishing fleet"

Halvard L. Aasjord, SINTEF Fisheries and aquaculture

In 1990 Norway had a total of 27.518 fishermen, of which 20475 were so called full time and 7043 part time fishermen. In 2001 the number was reduced to 18967 fishermen, 13700 full time and 5267 part time. The reduction of 8551 fishermen tells about the process of developing a more modern and efficient fishing fleet. Do the development of human accidents show the same trend?

In Norway SINTEF have reports of fatal and serious accidents among fishermen for a period of more than 45 years. Here I will present data both of fatal accidents and all other human accidents registered for the period of 1989 – 2001. My statistics from SINTEF shows a total number of 239 fatal accidents among fishermen in the period Jan. 1989 – June 2002. The number of accidents per year is decreasing from more than twenty losses per year before 1995 too less than ten for the last years. Still we have problems with too many accidents on small fishing boats that give a high level of risk special for single fishermen, see the table below. The problems with greater accidents like “capsizing of medium or bigger fishing vessels” seems to be solved, but still we have too many accidents of the type of “water filling of small boats”, “falling overboard” and “drowning in harbour”, and also some fatal accidents at work on board.

Period of Jan. 1989 – June 2002	Small fishing boats	Medium size vessels	Deep sea fishing vessels	Total fishing fleet
Fatal accidents reported	125	61	53	239
Calculated man years (1995)	5650	6390	9590	21630
Risk of fatal accidents	17,7	7,6	4,4	8,8

Safety training for all Norwegian fishermen started in 1982 and has been going on for about 20 years. To day this basic training is mandatory and has a high priority both by the authorities and the fishermen organisations. Norway offers a basic course of 40 hours and a repetition course of 20 hours 5- 8 years after. About 800 to 1000 recruits or new fishermen needs a basic course and about 2500 a repetition course each year.

Safety training is not enough to reduce all types of fatal accidents. When checking the register of safety training, we find that many of the fishermen who died in a sea accident had a basic safety course. Therefore it is not enough to be good in operating emergency and rescue equipment when the boat sinks. The fisherman also has to act more safely in all working conditions at sea and use more personal safety equipment and better clothing. We also talk about developing better safety routines and procedures on board Norwegian fishing vessels like vessels in the oil industry.

There has been a great renewing in the Norwegian fishing fleet and great parts the fleet has a high standard in respect to seaworthiness and vessel stability, where the Maritime governments of Norway practice very strict regulations. But a higher standard on new fishing vessels is not always a guarantee for safer working conditions, when the modern vessels are equipped with more fishing nets and heavier deck machinery to be more efficient in catching and producing great amounts of fish.

VENEZUELA

“Venezuela, achievements-perspectives in the fishing area”

María M. Rodríguez Da Silva. Universidad Marítima del Caribe, Caracas, Venezuela

Venezuela, a virtuous Country, blessed by heaven, for their tropical climate and the great wild life variety, vegetation and natural resources. Located strategically and topographically to the head of Latin America, with a National Territory of 916.445 Km², populated by 23.242.000 inhabitants (taken from census 2002) and with a great coast extension toward the Caribbean Sea of 3.726 km. " Earth of Grace" as Cristóbal Colon denominated it in 1498 , when he entered Venezuela through Orinoco River

Venezuela has, a great variety of national marine waters as well as continental, some diverse fishing resources of moderate dimensions on which commercial exploitations of growing importance have been developed during the last fifty (50) years. Being the tendency of the national fishing subsector quite important.

The statistics have denoted that by the 60's, it registered a global capture of 100.000 MT per year, in 1998, some 516.000 MT and in the year 2000 it ended up being located in 490.000 MT, as we can observe in 35 years the Venezuelan capture had quintupled, with a slight decrease by the year 2000.

In this way, we observe the growth experienced by the fishing subsector that has not been uniform, but very irregular bound to political or commercial joints that influence in the development of the activity.

The world energy crisis and the condition of VENEZUELA as an oil country, allowed the internationalization of the industrial fishing with tuna fleets that settled down in the country. The State facilitates the entrance of the country in the globalization process, that characterizes the world tuna industry and registered the biggest historical growth in the subsector, bolstered by the industrial tuna fleets, and trawler, receivers of subsidies and diverse incentives.

The end of the protective pattern in 1988 and the adoption of a new development model started since 1989, produced in the fishing subsector, an adjustment process after which the handmade fishing and the aquaculture arose with great important as the support of the fishing activity and national aquaculture, with a remarkable capacity of adaptation to the environment, which confers them competitiveness. On the other hand, the industrial fishing, especially trawler, is shown weak, declining and without future, unless the State assumes, as indeed it has done for many years, part of its costs through subsidies.

At the moment, Venezuela is the most important country in the Caribbean, in the fishing area, with an annual production that oscillates the 500.000 metric tons. With a global fishing population (approximately and registrations feel the effect obtained by the National Institute of Fishing and Aquaculture) of 22.993 fishermen, among those it is the handmade ones, the "volapie"

(fishermen that don't possess crafts) and fishermen in area of industrial fishing.

As for crafts, we have registered 6.175 fishing boats smaller than 12 mts and 1087 crafts for the industrial fishing, that oscillate among 10 tons up to 1.815 tons.

Notice that the biggest range is in the fishing boats, which develop the activity of the handmade fishing, which is the one that supplies the national market in 80%.

It is for such a reason that the National Government headed by Mr. Hugo Rafael Chavez Frias, decrees with force of fishing Law and Aquaculture, in November 2001, under the number 1.524 and published in the official gazette of the Republica Bolivariana de Venezuela No. 37076. Having as objectives, the regulation of the fishing sector and of Aquaculture through dispositions that it allows to the State:

1. - to foment, to promote, to develop and to regulate the fishing activities, the Aquaculture and related activities, based on the principles rectors that assure the production, the conservation, the control, the administration, the development, the investigation and the responsible and sustainable use of the hydrological resources, keeping in mind the biological, technological, economic aspects, of pertinent alimentary, social, cultural, environmental and commercial security.
2. - to promote the integral development of the fishing area and Aquaculture matters.
3. - to assure the enough and stable readiness of products and by-products of the fishing and the Aquaculture to assist the demand of the National market.
- 4.-to protect the establishments and handmade fishermen communities, as well as the improvement of the quality of the fishermen life. This resolution is motivated since in Venezuela

the handmade fishing maintains a great number of direct and indirect employments of the whole fishing sector, being quantified respectively in some 40.000 and 400.000 people.

5. - to protect the "caladeros" of the handmade fishermen fishing, in the continental waters and the ones next to the line of marine coast. It is for the first Title III, in the articles 12 to 19 of this Law, the general concepts settle down on fishes area, Aquaculture and related activities. As for the recognition of the rights of the handmade fishermen, in the Title I Article 21, the State reserves these fishermen the exclusive exploitation in the caladeros of important fishing resources such as the sardine, mussels and others, as well as all those that are distributed inside the fringe of six (6) miles with relationship to the coast.

Measure that product of the intense exploitation is adopted exercised by the trawler fishing that from the mid fifties has caused the collapse of the white shrimp and the "cazón" in the gulf of Venezuela, leaving to numerous species in scanty levels of abundance.

6.-establishes the principles and the norms for the application of it responsible practice that assures the administration and the effective use of the alive aquatic resources respecting the ecosystem, the biological diversity and the genetic patrimony of the nation.

Since the natural ecosystems, were being affected by the industrial fishing of trawler it interferes directly with the activities of the handmade fishing, in the aspects numbered below:

a. - Harming the fishing pleasures and their yield.

b. - Invading the areas assigned to the handmade fishermen by virtue of the absence of an efficient mechanism of control and penalization unpunished.

c. - Destroying the arts of the handmade fishing, "tendederos", "palangres", etc. In occasions during the night and not rarely to navigate with the out lights putting in danger the physical integrity of the handmade fishermen.

7.-protect the natural biodiversity and the ecological processes assuring a healthy and safe aquatic atmosphere.

8.-guarantee the full economic and social benefits to the handmade fishermen, to the crew of the fishing ships and the other workers of the fishing sub sector.

The history of the fishing and the Aquaculture in Venezuela, begin a new stage with this Ordinance Law in which a series of hopes that it had been deferred unaccountably converge. The fishing resources will be used in a different way, with a legal mark that assures their conservation and rational use. The Aquaculture will live its best moments from now on and the handmade fisherman, finally, will be subject fundamental inside the fishing development that will promote the Venezuelan State, through the *National Institute of Fisheries and Aquaculture*, another old dream came true, through this Ordinance Law.

Which are the perspectives ?

INAPESCA (National Institute of Fishing and Aquaculture), has the task, of veiling for that settled down in the Ordinance Law, is completed by the well-being of the fishing Venezuela of the present and future.

Reason why IT has settled down Political to develop:

Support to the handmade fishing

· Agreements with Governments and Governorships to assign about 4.200 million Bolívares dedicated to diverse projects of individual credits and fishing infrastructure. Being implemented through the associations of handmade, fisherman's being quantified until the moment 192 at national level. These associations working with INAPESCA, Governments and Governorships, are developing the plans of so much improvement of the quality of life, like in the fisherman's labour atmosphere.

- Mediation in the negotiation of prices of the sardine and mussels between the artisanal fishermen and industrial fishermen.
 - Discharge of 85% of the payment of the fishing permission
 - Formulation of the project of Social security for the handmade fisherman.
- This project was approved in first discussion, the implementation of the Public Health to the fisherman, centres of attention prescribe in ports, captaincies more important for the existent fishing population, establishment of the popular drugstore, training in areas like first aids, on life at sea, acquisition of fishing articles at low prices.

Support to the industrial fisheries on tuna

- Negotiation in the CIAT that allowed the consolidation of the Venezuelan tuna fleet in the East Pacific with some 30 fishing units.
- Negotiations with Costa Rica to reach a Fishing agreement that allows the favourable access to the Venezuelan fleet in their waters.
- Analysis of alternatives for the control of the import of having canned of tuna of the Andean area. It fits to highlight that in Venezuela 1047 companies were registered up to March 2.002, of which 978 companies of commercialising fishes products, 12 canning companies ,13 several pasteurisation companies ,44 processor companies.

Support to the aquaculture

- Project of reactivation of the cultivation of mussels in the East of the country, with an investment of 250 million Bolivars.
- Project of social cultivation of shrimps and repopulation of the Lagoon of Unare.
- Project of cultivation of Cachama, Cachamoto and Tilapia in the States Tachira, Barinas, Cojedes and Portuguese.

Support to the environment and natural systems

- Establishment two (2) periods of prohibited for the haulage fishing in the Gulf of Venezuela.

Fishing classification

- * Culmination of the process of Bid for the escogencia of the company that gave the technology of pursuit satellite of the Fishing Crawls and other Industrial Fisheries. This is the beginning to the establishment of the Attention Radio it Prescribes among others.

Deconcentration and decentralization of the fishing administration

- Creation and position in operation of the main headquarters of INAPESCA in the State Vargas.
- Elaboration of a plan of recovery of the regional offices and fishing inspectorias to national scale.

WE ARE JUST BEGINNING, BUT WE GO FOR A GOOD ROAD.

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Abstracts of interesting articles:

- Consumo de alcohol y factores de riesgo cardiovascular en una población laboral marítima. *Med Mar* 1996; 1(2): 52-59.

Alcohol consumption and cardiovascular risk factors in a maritime working population

Purpose: The purpose of this study is to identify cardiovascular risk factors and alcohol effects in a maritime-fishing working population.

Methodology: Population of reference: 485 male, mean age 39.2 ± 12.2 (rank 20 - 59 years old), all fishermen in the Murcia region were the sample. Alcohol consumption was measured in grams per working day. Non-drinkers (0 g/day), low drinkers (1 - 40 g./day), moderate drinkers (41 - 80 g./day) and excessive drinkers (>80 g./day).

Results: 22% were non- drinkers, 22,5% Low-drinkers, 32,6% moderate drinkers and 22,9% excessive drinkers. Mean values of total and HDL-cholesterol levels increased with alcohol consumption ($p > 0.01$). A 41.2 % of the sample showed cholesterol 240 mg % (moderate and excessive drinkers were the ones of higher frequency, 46 % $p < 0.05$). Only a 4.3 % had a HDL > 35 mg % Triglycerides increased with alcohol level but significant differences are only found in the mean values of excessive drinkers compared with the other groups ($p < 0.01$). The number of smokers increased with alcohol consumption, from 55.1 % in non-drinkers that smoked to 89.2 % in excessive drinkers ($p > 0.001$). Arterial hypertension prevalence was 24.7 % Excessive and non-drinkers were the groups of higher frequency, 35.1 % and 21.5 % respectively. We have found, only in the group of excessive drinkers, significant differences in the mean values of systolic and diastolic arterial tension.

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Transmission of tuberculosis in a deep sea fishing ship

Objectives: To describe the massive transmission of tuberculosis infection as a consequence of two sick persons of lung tuberculosis, in two deep-sea fishing ships.

Methodology: Epidemiological study of contacts. Everybody was part of a clinical interview and we carried out a cutaneous test of tuberculin, a blood analysis and a thorax x-ray. When needed a microbiological test to discard tuberculosis disease was made.

Results: 100% of those studied had a latent infection.

Conclusions: Seafarers that embark for a long period have a high risk of acquiring tuberculosis infection. The possibility of a tuberculin test in the seamen medical examination to embark should be considered

- Herrador Aguirre J. El Paludismo en los trabajadores del mar de Costa de Marfil. *Med Mar* 1996; 1(3): 112-117.

Malaria in seamen working in Ivory Coast

Seasonal malaria incidence in Spanish seafarers in Abidjan (Ivory Coast, in 1993 and 1994, n=15) was compared with the one in Spanish seamen in the rest of the world (from 1988 to 1994, n=221). We noticed two predominant periods: June-July-August and November-December-January. Seamen life and work conditions fishing in the Equatorial Atlantic area (with Abidjan as port of call) and specially the malaria chemoprophylaxis and treatment that they followed are described too. We suggest a chemoprophylaxis in the highest incidence periods and to consider 'Artemisina' derivatives in the treatment of malaria on board

- Ros Rosillo A, Comesaña García MJ, Sierra López MT. Antecedentes sexuales de riesgos de marineros en África Subsahariana e infección por retrovirus. *Med Mar* 1998; 1(6): 293-302.

Sexual risk background and retrovirus infection in seafarers in the Sub-Saharan Africa

Objective: To know risky behaviour antecedents, with special reference to the sexual ones, and to analyse retrovirus infection prevalence in seamen from the Pontevedra estuary with travels to the Sub-Saharan Africa in the past.

Methodology: Cross sectional study of HIV-1, HIV-2, HTLV-I, HTLV-II prevalence and risk practice. Based on an epidemiological survey to 144 seafarers, 29% of 504 seamen that have been in the Pontevedra Maritime Health centre because of their fitness exam from January to March of 1992, those that have been navigating in fishing-grounds of the Sub-Saharan Africa. 85% accepted voluntarily the test for the retrovirus.

Results: Mean age of the sample: 37.2 (CI 95% 35.2-39.2). Mean age when the sexual behaviour risk took place: 27.6 (CI 95% 26-29,3). Mode: 25 years old. 64 % of them have had a risky sexual behaviour, 59% have never used the preservative, 40% had a stable couple. A 20% of the seamen refer antecedents of sexual transmitted diseases, a 7.6% consumption of opiates and 2.7% had used intravenous drugs. The HIV-1 prevalence detected was 2.4% no one was positive to HIV-2, HTLV-I or HTLV-II.

Conclusions: Antecedents of sexual risky behaviours and other practices of risk are frequent and similar to that found in Spanish seafarers from other areas that travel to the Sub-Saharan Africa. The HIV-1 infection prevalence is 9 times higher than in the general population of Galicia. In order to prevent with health education and early diagnosis, it is a must to investigate systematically in seamen about the countries they have visited, sexual behaviour and other practices at risk.

- Estévez Cubas Y, Celis Ramírez I. Piodermitis en los marineros del atun de Lanzarote. Medicina y Seguridad del Trabajo 1999; 46(180): 43-53.

Pyodermitis in tuna fishermen of Lanzarote

The present articles is on the pyodermitis tuna fishermen suffer from this pathology that can be serious if not diagnoses and treated at an early stage. Several ethiological risk factors likely to cause the disease are to be analysed and studied on the ground of the respective legislation on prevention.

In order to know the behaviour pattern of fishermen a survey model has been drawn up for this purpose. The identification of the risk factors leads to the conclusion that the following issues require deeper studies:

- 1) Training workers in the sanitary-hygienic area
- 2) An approach for working conditions
- 3) Regular evaluation by the preventive service

- Rodríguez Galán R. Accidentes por animales marinos ocurridos en el sector marítimo-pesquero y recogidos en consulta radio-medica (1.981-1.993). Med Mar 2001; 2(3): 149-153.

Accidents caused by marine animals in the maritime fishing sector analyses from radio medical consultations

Objectives: To analyse occupational accidents caused by marine animals among seafarers which led to radio medical consultations and their relationship with occupational and demographic variables.

Methodology: Descriptive and retrospective research of all medical-radio consultations referring to the aforementioned type of accidents during the period between 1981 -1993. The Data Bank belonging to the Maritime Health Service of the Marine Social Institute was consulted.

Results: 72 radio-medical consultations due to occupational accidents caused by marine animals, most of which (76.38%) were suffered by workers on deck. Injuries were due to being stung by poisonous fish in 80.55% of these cases, 76.38% of which were in the higher limbs (hands). In 81.94 of cases, the injuries were slight, whereas 16.66% required evacuation.

Conclusions: In some cases, symptoms include discomfort and even sometimes prevent the victim from moving or working. This, together with the fact that complications are possible and may even be very serious, makes it necessary to improve personal protection (safety gloves and boots), to provide health training for medical personnel or the person in charge of health matters and to ensure that medicine chests on board are appropriately equipped.

- Novalbos JP, Nogueroles PJ, Costa MJ, Canals ML, Rodríguez A, Zafrá JA. Accidentabilidad asistida del sector marítimo pesquero español. 1993-1994. Med Mar 1999; 1 (8): 393-398.

Consultation of accidents attended by radio in the Spanish merchant and fishing fleet (1993-1994)

Objectives: To analyse radio medical consultation of accidents in the Spanish maritime industry (by the Spanish Radio-medical Centre) and their association with occupational and socio-demographic variables.

Methodology: Cross section retrospective and descriptive study of 912 accidents attended by the Spanish Radio- medical Advice Centre in merchant and fishing vessels of Spanish flag during 1993-94. As a risk measure we have used the approximate accident rate (AAR), which is the coefficient between number of accidents attended by number of cases of disease. All variables have been estimated with a 95 % Confidence Interval.

Results: 828 from 912 consulted accidents belonged to crew of Spanish flag ships, 43 from merchant vessels and 785 from fishing ships. Mean age of injured fishermen was

significantly lower than in the merchant crew. AAR was similar to both sectors 33.6 % in fishermen and 38.7 in merchant crew. Most of the accidents (84.4 %) happened on deck, 10.9 % in engine room. In both fleets main causes of accidents were strikes 55.4 % and 43.2 % respectively and falls 11.3 in fishermen and 21.6 % in merchant marine. Conclusions: High rate of accidents, first-aid attendance while sailing, radio-medical consultation complexity, importance of a trained seafarers during the radio medical advice justify a compulsory theoretic and practical training of the responsible for health on board.

- Mestre Moltó F, Morales Suárez-Varela MM, Gracia Andrés J, Llopis González A. Aspectos de la prevención en accidentabilidad laboral en el sector pesquero: importancia del adiestramiento del pescador en seguridad y supervivencia a bordo. Med Mar 1999; 1 (8): 399-406.

Preventive aspects related to accidents in the fishing industrie: training as a main factor in fishermen safety and survival on board

Objectives: To check how to teach skills to safety in fishermen can reduce occupational accidents on board.

Methodology: Analytical study of cases and controls. A case was defined as an accident on board; the period taken into account was a year. Two controls were selected per case. Age, position on board and previous training in safety and nautical-fishing were studied as variables.

Results: 152 cases (injured fishermen) and 308 controls were collected. No training in safety meant a 75 % higher risk of being involved in an accident ($p=0.02$). Deck crew had received significantly less training ($p<0.001$) and less nautical-fishing instruction, too ($p=0.001$). Accident rate was a 3 % lower per each year older in age of the worker.

Conclusions: Training in the use of safety, rescue and survival measures on board is necessary to reduce accidents in the fishing industry.

- Jensen O, Noer P, Stage S. Systematic description of work processes on board fishing vessels – classification of injuries – for preventional use. Proceedings of the 2nd International Conference on Occupational Risk Prevention, Gran Canaria Island, Feb 20-22, 2002.

During voyages at sea the working processes on board fishing vessels were studied and a detailed classification of the working processes were elaborated. Videos for use in the safety education of fishermen was produced together with written reports. Time studies of the work processes was performed on each type of vessel. Notified injuries to the Maritime Authorities for 5 years (approx. 1000 reports) were reviewed and allocated to the elaborated classification.

The work was intended to give a more precise description of the injury pattern on fishing vessels than before. Time studies of the working processes could possible be used to give an estimate of the relative importance of injuries. This should be used for prioritizing the most important sites for prevention on board.

Selected descriptions of the work processes will be presented. Also examples of proportional rates of injury for specific working processes will be shown.

4.- List of participants

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• Participation with papers:

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Robert Verbist	verbi@glo.be	IMHA President has excused his absence, he sent a welcome discourse.
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5.- Internal report

IMHA Workshop: Health in the fishing industry

S.Fernando, Cadiz, Spain 25-7 October 2002

Participants came from Spain, Denmark, Norway, United Kingdom and the International Labour Organisation. The representative from Venezuela was unable to travel to the meeting. This report presents a synoptic view of the discussions based on the workshop's objectives. The workshop programme, abstracts of contributions and slides are attached.

Current activities on health in the fishing industry

Several contributions reviewed current practices. Those of Spain were considered in greatest detail and serve as a benchmark for others. The Spanish deep sea fishing fleet operates on grounds at some distance from Spain. There is a separate social security fund for seafarers (ISM) which provides health care for distant water seafarers which is as far as possible of a similar standard to that for onshore workers. The elements are:

- doctors and clinic facilities in several African ports;
- two hospital ships, one in African waters and one to the North and West of Spain, each staffed by doctors and nurses and using fast craft for transfers but not providing direct helicopter support;
- long distance helicopter (SAR) support for the African coast from Las Palmas, with refuelling arrangements in Mauritania;
- a radiomedical advisory service offering direct contact at an early stage of any health problem to all seafarers. This service has access to computerised medical files on all Spanish national seafarers. Its performance has been audited in some detail, indicating a high standard of diagnostic accuracy and advice on treatment
- These provisions are in addition to crew training in medical first aid and supply of medical stores.

Participants comment the high cost of this system. A study of inshore fishing in Andalusia indicated a population with a high incidence of general and work related health problems. As far as they are coastal fishing, medical care is provided by the autonomous government. They only use occupational and preventive resources of ISM (medical examinations for the national data base, courses etc). Most worked full time in fishing but as individuals or in small family businesses.

A study in the Scottish fishing industry showed a position where there was a lower level of support than for the deep sea fishers from Spain but more provision than for their inshore workers. Particular concerns were the mismatch between medications required to be provided and those needed by crew. Work related injuries predominated over illness in frequency of treatments needed both while at sea and on return to land. Although drug and alcohol problems were thought to be important in the fishing community they did not currently appear to be major risk factors during fishing trips. Subjective concerns of fishermen included fatigue and the effects of work in bad weather. Most of this group were engaged on a catch share basis rather than as employees and this had implications for safety at sea and the perceived need for better health provisions.

A Norwegian presentation emphasised the need for a safe working environment both in terms of vessel design and good work practices. The former has probably contributed the fewer deaths from foundering of vessels in recent years. Many injuries, including common ones such as falls from the quay, are easily and simply prevented. Training plays an important part, including

regular refresher courses. These can be provided effectively from an 'ambulatory training vessel' which visits fishing harbours.

Spain has experience of both crewing from African countries, without any prior medical screening, and of treating seafarers from less developed countries on its hospital ships. Country and climate specific diseases have not been specially noted in those than wanted to embark (when the Spanish doctor examined them they were suppose to be the healthiest) but the medical stores and medical emergency competence of officers on some vessels from developing countries are dangerously inadequate. ILO data shows that the majority of fishermen (10 out of 16 million) world wide work on small undecked vessels. Most are from the developing countries. These usually lack any health/safety support or search and rescue services, so both bad weather and injury take a large toll of life.

Special health and occupational risk prevention problems

Many have been identified above. The major feature is the high risk, mainly of vessel loss and injury, specific to the working environment of fishing. These have in some respects become more severe with the loss of fish stocks and economic crisis in the industry world wide. Fishing grounds are further from home ports and fishing is undertaken for longer periods and in worse weather. This can be exacerbated by restrictions which limit fishing to certain days, irrespective of weather conditions.

The normal range of health problems also occur in those who fish. Risk at sea can be reduced by medical surveillance and advice or exclusion of those at high risk but this is not accepted by workers in many fishing communities and is impractical to apply to those who are not in formal employment relationships. Distance from care will increase the risks should sudden illness occur. This can be mitigated by measures such as those provided for deep water Spanish fishermen. Health promotion may reduce many lifestyle risks but this can be negated by the nature of work at sea and short periods on shore with cash in hand.

Quotas for fishing which are linked to a specific vessel can discourage the building of newer and safer vessels. Building also requires an expectation of future income and this may be unpredictable in a world of over fishing and stock conservation. The impact of regulations for fishing quotas on safety and working environment is an important social aspect related to fishermen health, too. They need economical support for scrapping vessels and they consider it a question of overruling. It seems to be necessary to call for other additional types of intervention than those related to the fishermen, the medical services, and the technical aspects of the vessels. We have however only scarce documentation related to this:

At the conference in Bamio, Spain 1992, Daniel Boisvert from the Canadian Ministry of health reported how a new quota system the individual quota system can lead to a better working environment for the fishermen. In 1994, a Danish member, Peter Sand Mortensen, of the EU council for the fisheries asked to investigate the fishermen's experiences, while fishing in heavy weather. The Danish group conducted a very small study in which the fishermen's assessed that quotas and regulations had major impact on their working conditions. Maria Rodríguez from Venezuela could not come to Spain, unfortunately. But in her paper she describes the new regulations for fishing in Venezuela, that among other in point 4 states: "to protect the establishments and handmade fishermen communities, as well as the improvement of the quality of the fishermen's life."

Problems in different fleets

Several lines of evidence suggest that injury and vessel loss risks are greatest in small craft. Where these operate near to shore access to health care is speedier and the main focus probably needs to be on vessel safety and injury prevention. For deep sea fleets the risks of both injury and illness can be increased by the time taken to obtain advice or to medevac a serious casualty. These can be reduced by training, good equipment and access to medical advice and treatment. The balance between the resources needed and the amount by which risk can be reduced is a political one at company, national or international level.

Climate plays a big part. Reliable weather forecasting can help. In cold countries survival after immersion may be critical. Norway has made the provision and use of sufficient survival suits for the whole crew the norm, with good results. Risk may also be mitigated by technical standards, for instance requiring ladders to be permanently in place to aid re-boarding.

In world terms the biggest area of risk is almost certainly in the small fishing craft used in developing countries. Any actions here need to be robust and low cost

Collaboration and sharing solutions

Dissemination of validated good practice is often poor, thus at least three countries independently developed inflatable life jackets that could be worn at all times on deck. There are likely to be different professional groups concerned with for instance vessel stability, safe fishing practices, survival, search and rescue and medical aspects. Links between such groups are essential to optimise prevention.

Some approaches to health risk management are readily transferred between countries, others such as the Spanish medical arrangements are deeply embedded in national systems and so parts may be used as models but they are not readily transferred in toto. So different countries and different fleets implies different solutions.

There is an important role for professional and other expert bodies in evaluating practices and disseminating them. Most of the past international collaborative efforts have needed international regulatory underpinning because they impose costs and constraints on a competitive industry which is motivated more by a compliance mentality than by an inherent urge on the part of those who control it financially to safeguard its workers. There is some evidence that the benefits of preventing vessel loss and occupational injury is at least understood by the fishing industry, even if effective action is not always taken. This understanding is lacking for most aspects of health management. Hence one of the prerequisites is a conceptual framework which indicates how good management of health risks in the fishing industry can be justified in terms of their benefits. This was considered in presentations and discussion both in terms of the current approaches to primary and secondary health intervention used by WHO and in the light of the health and safety risk management systems used in other sectors of industry.

Recommendations and Follow up

During the workshop several examples of practices which contribute to health in the fishing industries were presented. A number of studies and a wealth of statistical data indicating shortcomings in health protection and scope for improvement were also reviewed. Publication and indexing of these reports can provide a valuable resource for those responsible for standards and procedures in the industry at company, local, national or international level.

The available data on health and the consequences of injury and illness in the fishing industry is very limited. If priorities are to be set and interventions evaluated far better data are needed. Statistical returns made by the industry need to include information on injury and illness. Some information, especially on non-specific health problems, is likely to require specific projects to capture it. The development of a basic international data set would be very valuable for comparative purposes and to detect trends.

The forthcoming ILO review of the conventions and recommendations which apply to fishing and seafaring as well as the joint work of ILO/IMO/FAO on the fishing industry provide an opportunity to include information on health risk management in a form compatible with other precautionary approaches. In all new structural regulations in fishing (included quotas and others) social, medical and safety aspects are involved. A conceptual approach to health that is understood and can secure agreement is needed. In addition specific advice on topics such as medical aspects of placement/selection and the surveillance of health in fishing populations and on arrangements for emergency treatment will be required. Those present are willing to help with this, probably working through IMHA as the relevant international expert body.

On a world scale the greatest risks are probably among small boat fishers in the developing countries. Simple and robust solutions which can be implemented at a low cost are needed. Most will be concerned with vessel safety and injury prevention. Some on which IMHA could directly contribute are the counselling about treatment of injuries and acute illness at sea and advice about medical conditions in fishermen which could put vessels and crews at risk.

Good health of workers in the fishing industry can make an important contribution to efficiency. Health problems, including inadequate treatment of injuries, can lead to loss of life and premature termination of careers. Work in the fishing industries of the world can not be considered decent and non-exploitative unless there is good management of health risks and problems at vessel, organisational, national or international levels. The objectives of health management in the fishing industry (with examples) are:

1. To ensure that health problems in the crew do not put navigation or operation of the vessel at risk (sudden collapse of master at wheel)
2. To enable crew members to handle maritime emergencies effectively (physical and mental capability for the fighting and rescue)
3. To reduce the risk of illness arising from hazards in the working environment (exposure to noise or agents causing skin damage)
4. To reduce the probability of illness arising at sea which could put the sufferer at excess risk (identification and treatment of recurrent illness)
5. To minimise the risk of infection (food handling, tuberculosis)
6. To make provision for effective treatment of any illness or injury which may arise at sea (medical first aid training, medical stores, radiomedical advice, medicavac)
7. To provide opportunities for health promotion to help workers to complete their career and have a healthy retirement (chest disease prevention - diet, smoking etc)

The relative importance of each aspect will depend on the vessel and type of fishing. Thus in inland fishing anyone who becomes ill can readily be landed. Risks may be job and site specific - noise exposure limited to engine areas in big vessels but for example in the sardine fishing during night in small ships, the noise is everywhere (all are exposed, especially when they sleep near the engine).

Risk management action may take several forms (examples):

1. Maintaining a safe working environment (noise reduction)
2. Good work practices (avoidance of excessive fatigue)
3. Humane application of valid medical fitness standards and advice (caution for return to work after heart attack)
4. Training of officers in medical first aid and provision of medical guide
5. Provision of appropriate medical stores
6. Radiomedical advice services
7. Support for medicavac and shore treatment facilities for fishermen
8. Galley hygiene and health promotion initiatives

Factors could be written up in as much detail as is appropriate to ILO formats)

These actions need to be underpinned by arrangements to ensure that competent expert advice is available. Data on the findings and performance of each aspect of risk management is needed to evaluate its effectiveness and improve performance.

Assessment of health risks and requirements for the national fishing fleet using the above headings should be undertaken in collaboration with the industry and representatives of its employees. Arrangements should be introduced at national level either by regulation or social partner agreements to ensure that those aspects of health risk management relevant to the national fishing industry are in place. Collaboration between countries in the same region especially on matters such as medical advice and training should be considered. Designated specialist expertise is desirable. The data set needed to assess risks and the adequacy of control should be specified, responsibilities for data collection identified and secure resources allocated to collection and analysis.

Annex [suggested material for ILO publication]

Framework for health management in the fishing industry

Good health of workers in the fishing industry can make an important contribution to efficiency. Health problems, including inadequate treatment of injuries, can lead to loss of life and premature termination of careers. Work in the fishing industries of the world can not be considered decent and non-exploitative unless there is good management of health risks and problems at vessel, organisational, national or international levels. The objectives of health management in the fishing industry (with examples) are:

1. To ensure that health problems in the crew do not put navigation or operation of the vessel at risk (sudden collapse of master at wheel)
2. To enable crew members to handle maritime emergencies effectively (physical and mental capability for fire fighting and rescue)
3. To reduce the risk of illness arising from hazards in the working environment (exposure to noise or agents causing skin damage)
4. To reduce the probability of illness arising at sea which could put the sufferer at excess risk (identification and treatment of recurrent illness)
5. To minimise the risk of infection (food handling, tuberculosis)
6. To make provision for effective treatment of any illness or injury which may arise at sea (medical first aid training, medical stores, radiomedical advice, medevac)
7. To provide opportunities for health promotion to help workers to complete their career and have a healthy retirement. (heart disease prevention – diet, smoking etc)

The relative importance of each aspect will depend on the vessel and type of fishing. Thus in inshore fishing anyone who becomes ill can readily be landed. Risks may be job and ship specific – noise exposure limited to engine areas in big vessels but for example in the sardine fishing during night in small ships, the noise is everywhere (all are exposed, specially when they sleep near the engine).

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5. Provision of appropriate medical stores
6. Radiomedical advice service
7. Support for medevac and shore treatment facilities for fishermen
8. Galley hygiene and health promotion initiatives

[Actions could be written up in as much detail as ins appropriate to ILO formats]

These actions need to be underpinned by arrangements to ensure that competent expert advice both on policy and case management is available. Data on the findings and performance of each aspect of risk management is needed to evaluate its effectiveness and improve performance.

Assessment of health risks and requirements for the national fishing fleet using the above headings should be undertaken in collaboration with the industry and representatives of its employees. Arrangements should be introduced at national level either by regulation or by social partner agreements to ensure that those aspects of health risk management relevant to the national fishing industry are in place. Collaboration between countries in the same region, especially on matters such as medical advice and training should be considered. Designated specialist expertise is desirable. The data set needed to assess risks and the adequacy of control should be specified, responsibilities for data collection identified and secure resources allocated to collection and analysis.

The following sources of information give information relevant to the development of health management policies for a fishing industry.

6.- Summary and main conclusions for IMHA Newsletter

The third IMHA workshop of 2002 was held in S. Fernando (Cádiz) – Spain (25-27th October 2002). This time the subject was "Health in the Fishing Industry". Participants came from Spain, Denmark, Norway, United Kingdom and the International Labour Organisation. The representative from Venezuela was unable to travel to the meeting. The objectives were to know the current activities on health in the fishing industry in different countries, special health and occupational risk prevention problems, problems in different fleets, how to collaborate and share solutions, recommendations and follow up. The workshop programme, abstracts of contributions are at disposal of any person interested in.

During the workshop several examples of practices which contribute to health in the fishing industries were presented. Spain has special resources for the deep sea fishing fleet like hospital ships, doctors in Africa, a radio medical centres and coastal centres connected in a net. A survey in small coastal vessels and Andalusian fishermen about safety and health conditions showed the lack of safety measures and a high morbidity e.g skin problems. The radio medical advice doctor said that 90.9 % of the consultation received were from fishermen, 46.6 % were treated on board and 29.9 % need to be rescued; they have problems when attending foreign flag ships because a different medical chest. A study about Scottish fishermen show the impact of accidents, health and lifestyle conditions (the questionnaire showed lack of sleep and fatigue in 61.5 % of the cases, bad weather affecting their health 88.6 %) and the mismatch between medications required to be provide and those needed by crew. To implement safety measures is possible with good results according some studies with fishermen in Norway. In cold countries survival after immersion may be critical. Norway has made the provision and use of sufficient survival suits for the whole crew the norm, with good results. Risk may also be mitigated by technical standards, for instance requiring ladders to be permanently in place to aid re-boarding. A number of studies and a wealth of statistical data indicating shortcomings in health protection and scope for improvement were also reviewed. Publication and indexing of these reports can provide a valuable resource for those responsible for standards and procedures in the industry at company, local, national or international level.

The available data on health and the consequences of injury and illness in the fishing industry is very limited. If priorities are to be set and interventions evaluated far better data are needed. Statistical returns made by the industry need to include information on injury and illness. Some information, especially on non-specific health problems, is likely to require specific projects to capture it, proper research with a clear methodology. The development of a basic international data set would be very valuable for comparative purposes and to detect trends.

The forthcoming ILO review of the conventions and recommendations which apply to fishing and seafaring as well as the joint work of ILO/IMO/FAO on the fishing industry provide an opportunity to include information on health risk management in a form compatible with other precautionary approaches. In all new structural regulations in fishing (included quotas and others) social, medical and safety aspects are involved. A conceptual approach to health that is understood and can secure agreement is needed. In addition specific advice on topics such as medical aspects of placement/selection and the surveillance of health in fishing populations and on arrangements for emergency treatment will be required. Those present are willing to help with this, probably working through IMHA as the relevant international expert body.

On a world scale the greatest risks are probably among small boat fishers in the developing countries. Simple and robust solutions which can be implemented at a low cost are needed. Most will be concerned with vessel safety and injury prevention. Some on which IMHA could directly contribute are the counselling about treatment of injuries and acute illness at sea and advice about medical conditions in fishermen which could put vessels and crews at risk. The group agree to go on this subject during the next International Symposium in Tarragona, April 2003.

The following sources of information give information relevant to the development of health management policies for a fishing industry.

6 - Summary and main conclusions for IMHA Newsletter

The third IMHA workshop of 2002 was held in St. Fernando (Cádiz) - Spain (25-27 October 2002). This time the subject was "Health in the Fishing Industry". Participants came from Spain, Denmark, Norway, United Kingdom and the International Labour Organisation. The representative from Venezuela was unable to travel to the meeting. The objectives were to know the current activities on health in the fishing industry in different countries, special health and occupational risk prevention problems, problems in different fleets, how to collaborate and share solutions, recommendations and follow up. The workshop programme, abstracts of contributions are at disposal of any person interested in.

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